10/604,550

IN THE SPECIFICATION:

Please amend the specification as follows:

[0016] As shown in Figure 1, the invention provides a circuit that can observe data within shift registers without altering the data. The circuit includes selectors (e.g., demultiplexors/ multiplexors) 106, 107 connected to the inputs 121 and outputs 122 of the shift registers 112-114. The selectors 106, 107 selectively connect the input with the output 122 of one of the shift registers 112-114 to form a wiring loop 105 for the selected shift register.

[0028] The control logic 100, either as part of a normal operation, or as a specific operation code can be programmed to select one of the shift registers 112-114, and cause that shift register to shift in a rotating circular fashion via the two demultiplexors/multiplexors 106, 107. This allows the data in that shift register to be observed out of the observation input/output 103. Upon completion of the rotating shift operation, the initial value of the shift register is restored. Because this is a shift in a circular fashion, the control logic 100 only needs to shift the number of elements in the shift register in order to restore the data back to its original position.

2